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CLAIMS 1-15 CANCELLED

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**16. (New)** A method of controlling access of at least one electronic key to at least one electronic lock, within a predetermined timeslot, according to which:

(a) prior to any attempted access of the electronic key to an electronic lock, a control time value, delivered by a real-time clock of an external validating entity, is stored in memory in the lock;

then, upon each attempted access of the electronic key to an electronic lock:  
in the electronic key:

(b) a predetermined timeslot, previously stored in memory in the electronic key, is read;

(c) a trial time value  $t$  delivered by the real-time clock of said external validating entity, is stored in memory in the key;

(d) the timeslot and the trial time value are transmitted from the electronic key to the electronic lock, and in the electronic lock:

(e) it is checked that the trial time value transmitted is within the predetermined timeslot, and that it is posterior to the control time value stored in memory in the lock;

(f) if the checks performed in step (e) are satisfied, access is authorized and the control time value is updated on the basis of the trial time value transmitted;

(g) if the trial time value transmitted is outside the predetermined timeslot or if it is anterior to the control time value  $t$  stored in memory in the lock, access of this key to this lock is prohibited.

**17. (New)** A method as claimed in claim 17 wherein:

in the electronic key:

(bi) in step (b) a first electronic signature of said timeslot, previously computed and stored in memory in the electronic key, is read in addition to the timeslot or instead of the timeslot;

(di) in step (d), said electronic signature transmitted from the electronic key to the electronic lock, on the one hand, in addition to or instead of the timeslot (PH) and, on the other hand, said trial time value, and

in the electronic lock:

(e1) before step (e), the signature transmitted is checked on the basis of a specific checking key;

(fi) in step (f), access is authorized and the control time value is updated, on the basis of the trial time value transmitted, only if the checks performed in steps (e1) and (e) are satisfied;

(g1) in step (g), access of said key to said lock is prohibited if the trial time value transmitted is outside said timeslot, or if it is anterior to the control time value stored in memory in the lock, or if the check performed in step (e1) is not satisfied.

18. (New) A method as claimed in claim 17, wherein the order of execution of steps (e1) and (e) is inverted.

19. (New) A method as claimed in claim 17, wherein said specific checking key is a public or secret key.

20. (New) A method as claimed in claim 17, wherein:  
in the electronic key:

(c2) in step (c), in addition to the trial time value a second electronic signature of this trial time value is calculated and stored in memory;

(d2) in step (d1,) said second electronic signature of the trial time value is furthermore transmitted from the electronic key to the electronic lock, and

in the electronic lock:

(e2) before or after step (e), the signature of the trial value is checked, on the basis of a second public or secret specific checking key;

(f2) in step (f), access is authorized and the control time value is updated, only if the checks performed in steps (e), (e1) and (e2) are satisfied;

(g2) in step (g) , access of said key to said lock is prohibited if one of the checks performed in steps (e), (e1) or (e1) is not satisfied.

21. (New) A method as claimed in claim 17, wherein said predetermined timeslot comprises several disjoint timeslots.

22. (New) A method as claimed in claim 17, wherein each timeslot is an interval comprising two bounds each expressed as a date in terms of day, month, year and a time in terms of hours, minutes, seconds.

23. (New) A system for the electronic control of access, within a predetermined timeslot, comprising  
at least one electronic lock and at least one electronic key,  
wherein the key comprises:

- first means for storing a trial time value which means are read-accessible and write-accessible, and
- second means of communication for transmitting a predetermined timeslot and said trial time value to the lock, and

wherein the lock comprises:

- third means for storing a control time value which means are read-accessible and write-accessible, and
- fourth means for comparing the trial time value with the predetermined timeslot and with the control time value stored in said means of storage of the lock.

24. (New) A system as claimed in claim 23,

- wherein said second means of communication of the electronic key furthermore comprise means for transmitting a first electronic signature of said timeslot and a second electronic signature of said trial time value to the lock, and
- wherein the lock furthermore comprises fifth means for checking the electronic signatures transmitted by the key.

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25. (New) A system as claimed in claim 23, wherein said means of storage comprise an electrically reprogrammable nonvolatile memory.

26. (New) A system as claimed in claim 23, wherein the electronic key communicates with the electronic lock with the aid of means of contactless transmission, by electromagnetic inductance.

27. (New) A system as claimed in claim 26, wherein said means of contactless transmission comprise a first electromagnetic coil provided in the key and a second electromagnetic coil provided in the lock.

28. (New) A system as claimed in claim 27, wherein the coils provided in the key and in the lock are concentric.

29. (New) In a system for electronic access control within a predetermined timeslot comprising at least one electronic key and one electronic lock as claimed in claim 24, an electronic key comprising at least one key computation logic unit, a module for transmitting/receiving key access control signals for implementing a method of controlling access between this electronic key and an electronic lock on the basis of lock access control signals produced by this electronic lock, wherein this electronic key furthermore comprises:

- power signal generating means driven by said key computation unit; and
- key transfer means of said key and lock access control signals and of said power signal, said key transfer means comprising at least one winding interconnected with said power signal generating means and with said transmission/reception module.

30. (New) In a system for electronic access control within a predetermined timeslot comprising at least one electronic key and one electronic lock as claimed in claim 24, an electronic lock comprising at least one lock computation logic unit and a module for transmitting/ receiving lock access control signals for implementing a method of access

control between this electronic lock and an electronic key on the basis of key access control signals and of a power signal which are produced by this electronic key, wherein this electronic lock furthermore comprises:

- lock transfer first means of said key and lock access control signals and of said power signal, said lock transfer means comprising at least one winding interconnected with said module for transmitting/receiving lock access control signals; and
- second means for storing the electrical energy conveyed by said power signal, which are interconnected.